



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,507	07/06/2001	Gary J. Oleynick	003A.0005.U1(US)	4180
29683	7590	03/03/2004	EXAMINER	
HARRINGTON & SMITH, LLP 4 RESEARCH DRIVE SHELTON, CT 06484-6212			LEON, EDWIN A	
			ART UNIT	PAPER NUMBER
			2833	

DATE MAILED: 03/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/900,507

Applicant(s)

OLEYNICK ET AL.

Examiner

Edwin A. León

Art Unit

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29-33 is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-12, 14-16, 18-22, 26-28 and 34 is/are rejected.
- 7) ☒ Claim(s) 10, 17 and 23-25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 123103.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's Appeal Brief filed November 14, 2003 has been place of record in the file.
2. In view of the arguments presented in the Appeal Brief filed on November 14, 2003, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2833

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-7, 9, 11-12, 14-16 and 18-22 rejected under 35 U.S.C. 102(e) as being anticipated by Wu (U.S. Patent No. 6,166,892). With regard to Claim 1, Wu discloses an electrical connector (Fig. 1A) comprising: electrical contacts (4, 54, 55) comprising signal contacts (4) and power contacts (54, 55); and a housing (1) having the electrical contacts (4, 54, 55) connected thereto, the housing (1) comprising at least two vertically arranged electrical plug receiving areas (13), wherein the signal contacts (4) extend into the receiving areas (13) in a universal serial bus (USB) electrical conductor location configuration, wherein the power contacts (54, 55) extend into the receiving areas (13) on respective sides of the receiving areas (13) that are opposite the signal contacts (4) in each receiving area (13), and wherein in each receiving area (13) the signal contacts (4) are located along only a first one of the sides and the power contacts (54, 55) are located along only a second one of the sides opposite the first side. See Figs. 1A-3.

With regard to Claim 2, Wu discloses the signal contacts (4) comprising spring contact sections (40) extending into the plug receiving areas (13), tails (Fig. 1A) extending from a bottom side of the housing (1), and bent sections (Fig. 1A) there between. See Figs. 1A-3.

With regard to Claim 3, Wu discloses the spring contact sections (40) of the signal contacts (4) extending into two of the plug receiving areas (13) in opposite directions. See Figs. 1A-3.

With regard to Claim 4, Wu discloses the power contacts (54, 55) comprising spring contact sections (Fig. 1A) extending into the plug receiving areas (13), tails (Fig. 1A) extending from a bottom side of the housing (1), and bent sections (Fig. 1A) there between. See Figs. 1A-3.

With regard to Claim 5, Wu discloses the spring contact sections (Fig. 1A) of the power contacts (54, 55) extending into two of the receiving areas (13) in respective opposite directions. See Figs. 1A-3.

With regard to Claim 6, Wu discloses the housing (1) comprising a section (67, 68) between two of the plug receiving areas (13), and wherein the power contacts (54, 55) extend from the section into the two plug receiving areas (13). See Figs. 1A-3.

With regard to Claim 7, Wu discloses the electrical contacts (4, 54, 55) extending into a first one of the plug receiving areas (13) are arranged as a substantially mirror image to the electrical contacts (4, 54, 55) extending into a second one of the plug receiving areas (13). See Figs. 1A-3.

With regard to Claim 9, Wu discloses an electrically conductive shell (3) connected to the housing (1), the shell (3) comprising contacts (325) extending into the plug receiving areas (13). See Figs. 1A-3.

With regard to Claim 11, Wu discloses a universal serial bus (USB) electrical connector (Fig. 1A) comprising: a housing (1) forming a plurality of USB plug receiving

areas (13); electrical signal contacts (4) connected to the housing (1), and extending into the receiving areas (13), arranged for operably electrically connecting to the USB plugs (Column 2, Lines 3-18) inserted into the USB plug receiving areas (13); and electrical power contacts (54, 55) connected to the housing (1) and extending into the receiving areas (13) on respective sides of the receiving areas (13) opposite the signal contacts (4) in each of the receiving areas (13), wherein the housing (1) has a section (67, 68) between two of the receiving areas (13), wherein the power contacts (54, 55) extend from the section (67, 68) in opposite directions into the two receiving areas (13), and wherein the power contacts (54, 55) extend into the two receiving areas (13) only from the housing section (67, 68) and the signal contacts (4) extend into the receiving areas (13) only along sides of the receiving areas (13) opposite the housing section (67, 68). See Figs. 1A-3.

With regard to Claim 12, Wu discloses the two receiving areas (13) being vertically orientated relative to each other. See Figs. 1A-3.

With regard to Claim 14, Wu discloses the signal and power contacts (54, 55) extending into a first one of the receiving areas (13) are arranged as a substantially mirror image of the signal and power contacts (54, 55) extending into a second one of the receiving areas (13). See Figs. 1A-3.

With regard to Claim 15, Wu discloses the receiving areas (13) extend into a front side of the housing (1), and wherein ends of the contacts (4, 54, 55) extend from a bottom side of the housing (1). See Figs. 1A-3.

With regard to Claim 16, Wu discloses the plug receiving areas (13) being vertically aligned relative to each other, and wherein the electrical signal contacts (4) and the electrical power contacts (54, 55) in the two receiving areas (13) are arranged as substantially mirror images of each other. See Figs. 1A-3.

With regard to Claim 18, Wu discloses an electrical connector (Fig. 1A) comprising: a housing (1) having two plug receiving areas (13) vertically stacked relative to each other; and electrical contacts (4, 54, 55) connected to the housing (1) and extending into the two plug receiving areas (13), the contacts comprising signal contacts (4) and power contacts (54, 55), wherein the power contacts (54, 55) extend into the two receiving areas (13) and the signal contacts (4) extend into the two receiving areas (13), wherein the signal (4) and power contacts (54, 55) in a first one of the receiving areas (13) are arranged an array with the signal contacts (4) on a first side of the first receiving area (13) being located opposite the power contacts (54, 55) on an opposite second side in the first receiving area (13), the array being substantially a mirror image of the signal and power contacts (54, 55) in a second one of the receiving areas (13), and wherein signal contacts (4) the first receiving area (13) are located along only the first side and the power contacts (54, 55) in the first receiving area (13) are located along only the second side. See Figs. 1A-3.

With regard to Claim 19, Wu discloses the housing (1) comprising a section (67, 68) located between and separating the two plug receiving areas (13) from each other. See Figs. 1A-3.

With regard to Claim 20, Wu discloses the two plug receiving areas (13) being vertically aligned relative to each other. See Figs. 1A-3.

With regard to Claim 21, Wu discloses the power contacts (54, 55) extending from the section (67, 68) in opposite directions into the two receiving areas (13). See Figs. 1A-3.

With regard to Claim 22, Wu discloses the signal contacts (4) extending into the first and second receiving areas (13) in respective opposite inward directions. See Figs. 1A-3.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wu (U.S. Patent No. 6,166,892). Wu discloses the claimed invention as shown above except for each plug receiving area comprises four of the signal contacts extending thereinto and two of the power contacts extending thereinto opposite the four signal contacts.

Still, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the connector of Wu by having four of the signal contacts and two of the power contacts since it has been held that mere duplication of the

essential working parts of a device involves only routine skill in the art (*St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8) and it is well known in the art of electrical connectors that having certain number of contacts would provide the connector with the versatility for receiving different kind of mating connectors.

7. Claim 26-28 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu (U.S. Patent No. 6,166,892) in view Yang (U.S. Patent No. 6,238,244). With regard to Claims 26-28, Wu discloses the claimed invention as shown above except the plurality of USB plugs having supporting decks being located vertically aligned relative to each other.

However, Yang discloses a similar connector (Fig. 1) having supporting decks (11, 12) being located vertically aligned relative to each other. See Figs. 1-3.

Thus, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the connector of Wu by adding supporting decks as taught in Yang in order to provide the capability of holding the contacts in a superposed relationship.

Allowable Subject Matter

8. Claims 29-33 are allowed.

9. Claims 10, 17 and 23-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The references fail to teach, disclose, or suggest, either alone or in combination, the housing comprises projections extending into the receiving areas in a forward direction, portions of the signal contacts extending through cavities along the projections, and ends of the signal contacts being preloaded against sections of the projections, the shell comprising contact arms which extend into the two receiving areas in opposite directions, the shell comprising contact arms extending into the two receiving areas from four sides of the connector, the housing comprising two projections extending towards a front end of the housing above and below a center projection of the housing, and at least one of the first and second receiving area sections is sized and shaped to alternatively receive third electrical plug having a signal contact supporting deck, but not having a power contact section and in combination with the rest of the limitations in the base and intermediate claims.

Response to Arguments

10. Applicant's arguments with respect to claims 1-12 and 14-34 have been considered but are moot in view of the new ground(s) of rejection.

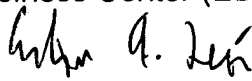
Art Unit: 2833

Conclusion


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin A. León whose telephone number is (703) 308-6253. The examiner can normally be reached on Monday - Friday 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (703) 308-2319. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Edwin A. León
AU 2833

EAL
February 22, 2004


P. AUSTIN BRADLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800